

MOVING TABLE MRI WITH FREQUENCY-ENCODING IN THE z-DIRECTION

Abstract of Disclosure

A system and method are disclosed using continuous table motion while acquiring data to reconstruct MR images across a large FOV without significant slab-boundary artifacts that reduces acquisition time. At each table position, full z-encoding data are acquired for a subset of the transverse k-space data. The table is moved through a number of positions over the desired FOV and MR data are acquired over the plurality of table positions. Since full z-data are acquired for each slab, the data can be Fourier transformed in z, interpolated, sorted, and aligned to match anatomic z locations. The fully sampled and aligned data is then Fourier transformed in remaining dimension(s) to reconstruct the final image that is free of slab-boundary artifacts.

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Figures

Figure 1: A line graph showing the relationship between the number of figures and the number of pages. The x-axis is labeled 'Number of Figures' and ranges from 0 to 10. The y-axis is labeled 'Number of Pages' and ranges from 0 to 10. The data points are (0, 0), (1, 1), (2, 2), (3, 3), (4, 4), (5, 5), (6, 6), (7, 7), (8, 8), (9, 9), and (10, 10). The line is a straight line with a slope of 1.